Department
of
Defense

DoD Electronic Data Interchange (EDI) Convention

ASC X12 Transaction Set 410 Rail Carrier Invoice (Version 003020)

DF301LN4

September 1994

Department
of
Defense

DoD Electronic Data Interchange (EDI) Convention

ASC X12 Transaction Set 410 Rail Carrier Invoice (Version 003020)

This document was prepared by the Logistics Management Institute for the Defense Finance and Accounting Service – Indianapolis Center, and the Defense Logistics Agency under Task DF301. The task was performed under Contract MDA903-90-C-0006 with the Department of Defense.

10.0 DoD EDI CONVENTION

ASC X12 TRANSACTION SET 410 RAIL CARRIER INVOICE (VERSION 003020)

FORMATTING INVOICE INFORMATION FOR THE DoD TRANSPORTATION PAYMENT SYSTEM USING THE X12.139 TRANSACTION SET 410 RAIL CARRIER INVOICE.

(BLANK PAGE)

Contents

(BLANK PAGE)

10.i INTRODUCTION

This is an electronic data interchange (EDI) systems design document that describes the standard or "convention" the Department of Defense (DoD) uses to accept a transportation invoice using the ASC X12.139 Transaction Set 410 Rail Carrier Invoice (003020). It contains information for the design of interface computer programs that link systems application computer programs with an EDI translator computer program.

Who Needs to Use This Document

Computer programmers can use this document to identify the data in an EDI transaction with data requirements from their specific application database. Conversely, programmers can identify where their applications data requirements should be carried in an EDI transaction.

Why Use a Convention

There are more ways to complete an EDI transaction than there are ways to fill out a blank form. A convention defines the rules for filling in or "populating" an EDI transaction with a specific data set. Following a convention ensures the integrity of data that is produced and processed by EDI-capable computer systems.

Contents

Four sections are included in this document.

- Section 10.2, Control Segments, identifies the specific data requirements for formatting the interchange control segments needed to send and receive EDI transactions.

- Section 10.5, Data Element Cross-Reference Matrix, lists the DoD's data requirements and specifies where each data element should be carried in the transaction set. This section can be used to map an existing application database into the transaction set.

- Section 10.7, DoD Conventions, lists the layout of the target transaction set by segment and data element. Identified along side each transaction set data element is the cross-reference data element from Section 10.5. This section can be used to interpret segments and data elements of a populated transaction set.

- Appendices contain examples of populated transaction sets, DoD code lists, and other items that serve as references for software developers.

(BLANK PAGE)

10.2 Control Segments

Overview

This chapter describes the EDI control segments (interchange control and functional group segments). The control segment information was derived from the ASC X12 Standards Draft Version 3 Release 2 (003020).

Purpose

This chapter identifies the specific data requirements for formatting the EDI control segments when transmitting and receiving EDI transactions. The format and data content of the control segments are usually managed by EDI translation software. The data requirements described herein should be used to set control segment formats when installing or initializing translation software for transmission and reception of EDI transactions.

Contents

Two items are included in this chapter.

- Table 10.2-1, Interchange Control Segment Hierarchy, identifies the control segments in their order of occurrence in an EDI communications interchange.

- Table 10.2-2, DoD Convention ASC X12 Control Segments, presents a detailed description of the DoD's data conventions for formatting EDI standard control segments. All segments identified in Table 10.2-1 are broken down and described by their discrete data elements.

Special Instructions

Any unique eight-bit (byte) character could serve as data element separator, segment terminator, or subelement separator, provided each character is disjoint from all data elements within an interchange and that these do not conflict with telecommunications protocols necessary to the transmission of the interchange. The following recommended values are based on information published in Electronic Data Interchange, X12 Standards, Version 3, Release 2, Appendix B, Section 3.

Data Element Separator

While the data element separator is graphically displayed as an asterisk (*) in ASC X12 documentation, it is the value employed in the fourth byte of an interchange envelope that actually assigns the separator that the translators will use throughout an interchange.

ASC X12 recommends the ASCII character with hexadecimal value "1D" for use as the data element separator (gs).

Segment Terminator

Likewise, the control envelope establishes the byte value used for segment termination within an interchange. ASC X12 documentation usually portrays this as a new line (n/l) character, but the actual segment terminator for an interchange will be the byte value occurring immediately following the ISA16 segment.

ASC X12 recommends the ASCII character with hexadecimal value "1C" for use as the segment (fs) terminator.

Subelement Separator

The ISA segment provides a discrete element (ISA16) for defining the subelement separator within an interchange. Although designated as reserved for future expansion in Version 3, Release 2, a value in ISA16 is required.

ASC X12 recommends the ASCII character with hexadecimal value "1F" for use as the subelement separation (us) character.

TABLE 10.2-1

Control Segment Hierarchy

(BLANK PAGE)

Interchange Control Envelope
Control Segments

Industry	Pos No.	Seg ID	Name	Req Des	Use	Loop
USE	10	ISA	Interchange Control Header	M	1	
USE	20	GS	Functional Group Header	M	1	
			•			
			• Grouped Transactions			
			•			
USE	30	GE	Functional Group Trailer	M	1	
USE	40	IEA	Interchange Control Trailer	M	1	

(BLANK PAGE)

TABLE 10.2-2

DoD Convention

ASC X12 Control Segments

{BLANK PAGE}

Segment: **ISA** Interchange Control Header
Usage: M
Purpose: To start and identify an interchange of one or more functional groups and interchange-related control segments.
Note: The interchange control number value in this header must match the value in the same data element in the corresponding interchange control trailer.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
ISA01	**I01**	**Authorization Information Qualifier** Code to identify the type of information in the authorization information. **Code** **Definition** 00 No Authorization Information Present.	**M ID 2/2**
ISA02	**I02**	**Authorization Information** Information used for additional identification or authorization of the sender or the data in the interchange. The type of information is set by the Authorization Information Qualifier.	**M AN10/10**
ISA03	**I03**	**Security Information Qualifier** Code to identify the type of information in the security information. **Code** **Definition** 00 No Security Information Present.	**M ID 2/2**
ISA04	**I04**	**Security Information** This is used for identifying the security information about the sender or the data in the interchange. The type of information is set by the Security Information Qualifier.	**M AN10/10**

Authorization Qualifier
[001]

Authorization Info
[002]

No authorization information is present, fill field with zeroes.

Security Qualifier
[003]

Security Info
[004]

No security information is present, fill field with zeroes.

ISA05 **I05** **Interchange ID Qualifier** **M ID 2/2**

Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified.

Sender Qualifier
[005]

Use authorized X12 code list.

ISA06 **I06** **Interchange Sender's ID** **M AN15/15**

Identification code published by the sender for other parties to use as the receiver ID to route data to them. The sender always codes this number in the sender ID element.

Sender ID
[006]

DoD activities use Department of Defense Activity Address Code (DoDAAC) or other code coordinated with the Defense Transportation EDI Administrator. Non-DoD activities use identification code qualified by ISA05 and coordinated with value-added network (VAN).

ISA07 **I05** **Interchange ID Qualifier** **M ID 2/2**

Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified.

Interchange Qualifier
[007]

Use authorized X12 code list.

ISA08 **I07** **Interchange Receiver's ID** **M AN15/15**

Identification code published by the receiver of the data. When sending, it is used by the sender as their sending ID, thus other parties sending to them will use this as a receiving ID to route data to them.

Receiver ID
[008]

DoD activities use Department of Defense Activity Address Code (DoDAAC) or other code coordinated with the Defense-Transportation EDI Administrator. Non-DoD activities use identification code qualified by ISA07 and coordinated with value-added network (VAN).

ISA09 **I08** **Interchange Date** **M DT 6/6**
Date of the interchange.

Date
[009]

Date assigned by translation software.

ISA10 **I09** **Interchange Time** **M TM 4/4**
Time of the interchange.

Time
[010]

Time, expressed in HHMM format, assigned by translation software.

ISA11 **I10** **Interchange Control Standards Identifier** **M ID 1/1**
Code to identify the agency responsible for the control standard used by the message that is enclosed by the interchange header and trailer.

Standards ID
[011]

Code	Definition
U	U.S. EDI Community of ASC X12, TDCC, and UCS

ISA12 **I11** **Interchange Control Version Number** **M ID 5/5**
This version number covers the interchange control segments.

Version ID
[012]

Version/release of control segment, as defined or agreed upon by the trading partners.

Code	Definition
00302	Draft Standard for Trial Use Approved for Publication by ASC X12 Procedures Review Board Through October 1991

ISA13 I12 Interchange Control Number M N0 9/9

This number uniquely identifies the interchange data to the sender. It is assigned by the sender. Together with the sender ID it uniquely identifies the interchange data to the receiver. It is suggested that the sender, receiver, and all third parties be able to maintain an audit trail of interchanges using this number.

Interchange Control Number
[013]

Assigned by translation software.

ISA14 I13 Acknowledgment Requested M ID 1/1

Code sent by the sender to request an interchange acknowledgement.

Acknowledgment Request
[014]

Code value agreed upon by trading partners.

Code	Definition
0	No Acknowledgment Requested
1	Interchange Acknowledgement Requested

ISA15 I14 Test Indicator M ID 1/1

Code to indicate whether data enclosed by this interchange envelope is test or production.

Test Indicator
[015]

Code value agreed upon by trading parters.

Code	Definition
P	Production Data
T	Test Data

ISA16 I15 Subelement Separator M AN 1/1

This is a field reserved for future expansion in separating data element subgroups. (In the interest of a migration to international standards, this must be different from the data element separator).

Subelement Separator
[016]

ASC X12 recommends the ASCII character with hexadecimal value "1F" for use as the subsequent separation character.

Segment: **GS** Functional Group Header
Usage: M
Purpose: To indicate the beginning of a functional group and to provide control information.
Comment: 00 A functional group of related transaction sets, within the scope of X12 standards, consists of a collection of similar transaction sets enclosed by a functional group header and a functional group trailer.
04 GS04 is the Group Date.
05 GS05 is the Group Time.
Syntax Notes: 06 The data interchange control number GS06 in this header must be identical to the same data element in the associated Functional Group Trailer GE02.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
GS01	**479**	**Functional ID Code** Code identifying a group of application related Transaction Sets.	**M ID 2/2**

Functional ID
[020]

Code	Definition
IA	110 - Air Freight Details and Invoice
IM	210 - Freight Details and Invoice (Motor)
MI	213 - Carrier Shipment Status Inquiry
QM	214 - Shipment Status Message
IR	410 - Freight Details and Invoice (Rail)
TS	602 - Transportation Services
RA	820 - Payment Order/Remittance Advice
SI	858 - Shipment Information
FB	859 - Freight Invoice (Generic Mode)
CG	994 - Administrative Message
FA	997 - Functional Acknowledgement

Choose the code value appropriate to the transaction type of the functional group. See X12 Dictionary for source code list.

GS02	**142**	**Application Sender's Code** Code identifying party sending transmission. Codes agreed to by trading partners.	**M AN 2/15**

Sender's Code
[021]

DoD activities use Department of Defense ActivityAddress Code (DoDAAC). Non-DoD activities use identification code assigned by DoD activity. Recommend for increased security that non-DoD code differ from that used in ISA06.

GS03 124 Application Receiver's Code M AN 2/15
Code identifying party receiving transmission. Codes agreed to by trading partners.

Receiver's Code
[022]

DoD activities use Department of Defense ActivityAddress Code (DoDAAC). Non-DoD activities use identification code assigned by DoD activity. Recommend for increased security that non-DoD code differ from that used in ISA08.

GS04 373 Date M DT 6/6
Date (YYMMDD).

Date
[023]

Date assigned by translation software.

GS05 337 Time M TM 4/6
Time expressed in 24 hour clock time (HHMMSS) (Time range: 000000 through 235959).

Time
[024]

Time, expressed in HHMM format, assigned by translation software.

GS06 28 Group Control Number M N0 1/9
Assigned number originated and maintained by the sender.

Group Control Number
[025]

Assigned by translation software.

GS07 455 Responsible Agency Code M ID 1/2
Code used in conjunction with Data Element 480 to identify the issuer of the standard.

Agency Code
[026]

Indicates that an ANSI X12 standard is being transmitted.

Code	Definition
X	Accredited Standards Committee X12

GS08 480 Version/Release/Industry Id Code M AN 1/12

Code indicating the version, release, subrelease and industry identifier of the EDI standard being used (see X12 Dictionary).

Version/Release
[027]

Version/release for transactions in the functional group. See X12 Dictionary for source code list.

Code	Definition
003020	Draft Standard Approved By ASC X12 Through June 1991

Segment: **GE** Functional Group Trailer
Usage: M
Purpose: To indicate the end of a functional group and to provide control information.
Comment: 00 The use of identical data interchange control numbers in the associated functional group header and trailer is assigned to maximize functional group integrity. The control number is the same as that used in the corresponding header.
Syntax Notes: 02 The data interchange control number GE02 in this trailer must be identical to the same data element in the associated Functional Group Header GS06.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
GE01	**97**	**Number of Included Sets** Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element.	**M N0 1/6**
GE02	**28**	**Group Control Number** Assigned number originated and maintained by the sender.	**M N0 1/9**

Number of Segments
[028]

Assigned by the translation software.

Group Control Number
[029]

Assigned by the translation software. This control number must match the control number that occurs in GS06.

Segment: **IEA** Interchange Control Trailer

Usage: M

Pupose: To define the end of an interchange of one or more functional groups and interchange-related control segments.

Note: The interchange control number in this trailer must match the value in the same data element in the corresponding interchange header.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
IEA01	**I16**	**Number of Included Functional Groups** A count of the number of functional groups included in a transmission.	**M N0 1/5**
IEA02	**I12**	**Interchange Control Number** This number uniquely identifies the interchange data to the sender. It is assigned by the sender. Together with the sender ID it uniquely identifies the interchange data to the receiver. It is suggested that the sender, receiver, and all third parties be able to maintain an audit trail of interchanges using this number.	**M N0 9/9**

Functional Group Count
[040]

Assigned by translation software.

Interchange Control Number
[041]

Assigned by translation software. This number must match the number that occurs in ISA13.

(BLANK PAGE)

10.5 DATA ELEMENT CROSS-REFERENCE MATRIX

Overview

This chapter lists the data element cross-reference for DoD ASC X12.139 Transaction Set 410 Rail Carrier Invoice (003020). We derived the cross-reference from the following:

- Examination of DoD transportation invoice information data requirements.
- Analysis of ASC X12.139 Transaction Set 410 Motor Carrier Invoice.
- Comments submitted by Defense activities and commercial carriers involved in the DoD's EDI program in transportation.

Purpose

This chapter identifies the specific data in an application and their corresponding EDI mapping into the Transaction Set 410. The resultant cross-reference matrix can be used to identify data elements from an existing application database. If no application exists, the matrix provides enough information to develop a database design to automate the application. With an application in place, the matrix will expedite mapping of the database into a commercial EDI translation package. All trading partners who plan to exchange the 410 with DoD can use this cross-reference matrix to develop their database/EDI translator interface program.

Contents

Table 10.5-1, Data Element Cross-Reference, lists all discrete data elements required for the invoice, corresponding segments, and data element numbers for the ASC X12.139 Transaction Set 410 Rail Carrier Invoice.

(BLANK PAGE)

TABLE 10.5-1

DATA ELEMENT CROSS-REFERENCE

Data Requirements for Generating DoD Transportation Invoices using the X12.139 Transaction Set 410 Rail Carrier Invoice

How To Read This Table

Table 10.5-1 cross-references discrete DoD invoice data requirements to the corresponding segment and data elements of the Transaction Set 410. The following definitions explain how Table 10.5-1 is organized. Understanding the information in this table requires familiarity with EDI standards.

Government References

The first three columns on the left in Table 10.5-1 identify the specific invoice data element.

- DATA NAME: Lists individual data elements required to send a transportation invoice. Users should identify these elements with a data name in their internal database system.
- INDEX: Three entries may appear in this column and represent various levels of indexing used to sort the data names in a data dictionary.
- Data Grp: This column contains a numeric value which is used to classify data elements to a functional area of a business transaction set. See Special Instructions below for further explanation.

EDI References

The remaining seven columns identify the detailed mapping of each data name into Transaction Set 410. Use of these references is explained below in "How To Use This Table".

- TBL: The table area of the transaction set where the data are mapped. 1 = header, 2 = detail, 3 = summary.
- POS: The sequential position of a specific segment within the table area of the transaction set.
- REF DES: The alphanumeric characters identify a transaction set segment; the two numeric characters in the column identify a data element position in the segment.
- DE #: The EDI data element number that appears at that position in the segment.

- VALUE: The recommended code value(s) that should be used.

- DoD CONVENTIONS: Additional information about the data as they apply to DoD use.

How To Use This Table

This table traces a data element to a specific data element in the EDI transaction set convention Table 10.7-3.

1. Select any data element from the DATA NAME list.

2. Identify the TBL, POS, and REF DES for that DATA NAME.

3. Go to Table 10.7-2, DoD Segment Hierarchy.

4. Find the TBL (Table 1 = header, etc.) in the hierarchy.

5. Locate the segment that corresponds to the POS and the REF DES. (NOTE: Where the POS does not appear in some hierarchy tables, use the segment ID identified by the alphanumeric characters in the REF DES.)

6. In the left-hand column, identify the page number of the segment ID.

7. Turn to that page number in Table 10.7-3.

8. In Table 10.7-3, find the REF DES from step 2 under the Ref. Des. column to the right of the double vertical lines on the page.

9. You have now traced a data element from Table 10.5-1 to Table 10.7-3.

From Table 10.5-1, the DATA NAME along with its INDEX and the DoD CONVENTION appear in the left-hand column of Table 10.7-3. The EDI standard definition of the data element appears in the right-hand column of the page.

Each DATA NAME from Table 10.5-1 can be traced to the transaction set in this manner.

NOTE: To reference from Table 10.7-3 back to Table 10.5-1, use the INDEX as a look-up key.

Special Instructions

- The Data Group identifier groups functionally similar data. Those groups are described below:

> Data Group 10 - Header Information. Elements in this group generally occur in the header area of the transaction set. This group occurs once per invoice.

> Data Group 60 - Equipment Information.

> Data Group 70 - Tendered to Carrier SCAC Information. This group occurs once per invoice.

> Data Group 71 - Destination Transportation Company Information. This group occurs once per invoice.

> Data Group 76 - Diversion/Reconsignment Information. This group occurs once per invoice.

> Data Group 78 - Issuing Office Information. This group occurs once per invoice.

> Data Group 100 - Service Charge Information. This group repeats for each service charge.

> Data Group 900 - Invoice Totals Information. This group occurs once per invoice.

410 RAIL CARRIER INVOICE DATA NAME	INDEX	DATA GRP	TBL	POS	DES	REF DE #	VALUE	DoD CONVENTION
Transaction Set Id	[001]	10	1	10	ST01	143	410	- X12.139 Rail Carrier Freight Details and Invoice
Transaction Set Control Number	[002]	10	1	10	ST02	329		The application and structure of the control number must be agreed upon between DoD and its trading partners. The first five digits will indicate the interchange control number. The last four digits represent the sequence of the transaction within the functional group.
Invoice Number	[003]	10	1	20	B3B01	76		Transportation service provider's unique invoice number.
Shipment Method of Payment	[004]	10	1	20	B3B02	146	PP - Prepaid CC - Collect	CHANGE NOTE: Add new code. DTSSC DM 0077B. Requestor: DFAS-IN.
Invoice Date	[005]	10	1	20	B3B03	373		Date the invoice is issued. Use format YYMMDD.
Total Charges	[006]	10	1	20	B3B04	193		Total shipment charge including linehaul, accessorial, miscellaneous, and fuel charges. Implied decimal at second position from right.
Payment Due Date	[007]	10	1	20	B3B05	373		Not used by DoD payment centers. Use format YYMMDD.
Billing Carrier SCAC	[008]	10	1	20	B3B06	140		Use the SCAC of the carrier that issues the invoice.
Transportation Method	[009]	10	1	20	B3B07	91	R - Rail	

GBL Number	[010]	10	1	20	B3B08	145		DoD unique number representing a shipment. The number is made up of one or two alpha characters followed by six or seven numbers. Do not use any punctuation or special characters.
Correction Indicator	[011]	10	1	20	B3B10	202	AD CA	- Supplemental - Cancel If the invoice is submitted for the first time (original invoice), this optional data field is not used.
Payee Code Qualifier	[012]	10	1	40	N901	128	PQ	- Payee Identification
Payee Code	[013]	10	1	40	N902	127		Identification assigned by DoD payment center. Qualify in N901.
Payee Zip Code	[013 010]	10	1	40	N903	369		Zip code of location that payee authorizes payment to be sent. Must match payee information on file at payment center.
Carrier Pickup Date Qualifier	[014]	10	1	40	N901	128	P8	- Pickup Reference Number
Carrier Pickup Date Text	[015]	10	1	40	N903	369		To satisfy X12 syntax, fill this data element with "PICKUP DATE".
Carrier Pickup Date	[016]	10	1	40	N904	373		Date carrier picked up shipment. Not required for submission of supplemental invoices. Use format YYMMDD.
Carrier Pickup Time	[017]	10	1	40	N905	337		Time carrier picked up shipment. Use format HHMM.
Carrier Delivery Date Qualifier	[018]	10	1	40	N901	128	DO	- Delivery Reference Number

410 RAIL CARRIER INVOICE DATA NAME	INDEX	DATA GRP	TBL	POS	DES	REF DE #	VALUE	DoD CONVENTION
Carrier Delivery Date Text	[019]	10	1	40	N903	369		To satisfy X12 syntax, fill this data element with "DELIVERY DATE."
Carrier Delivery Date	[020]	10	1	40	N904	373		Date carrier delivered shipment. Not required for submission of supplemental invoices. Use format YYMMDD.
Carrier Reference Number Qualifier	[021]	10	1	40	N901	128	CN	- Carrier Reference Number (PRO Number)
Carrier Reference Number	[022]	10	1	40	N902	127		Qualify in N901.
Equipment Number	[022 010]	60	1	50	N702	207		Mandatory ANSI syntax field not required by DoD.
Waybill Number	[022 100]	10	1	130	N801	186		Mandatory ANSI syntax field not required by DoD.
Waybill Date	[022 110]	10	1	130	N802	373		Mandatory ANSI syntax field not required by DoD.
Origin Station	[022 120]	10	1	140	F902	101		Mandatory ANSI syntax field not required by DoD.
Origin Station Code	[022 130]	10	1	140	F903	156		Mandatory ANSI syntax field not required by DoD.
Destination Station	[022 140]	10	1	150	D902	300		Mandatory ANSI syntax field not required by DoD.

Destination Station State Code	[022 150]	10	1	150	D903	156		
								Mandatory ANSI syntax field not required by DoD.
Issuing Office Qualifier	[031]	78	1	160	N101	98	IU	- Issuer
Issuing Office GBLOC Qualifier	[032]	78	1	160	N103	66	27	- Government Bill Of Lading Office Code (GBLOC)
Issuing Office GBLOC	[033]	78	1	160	N104	67		
								Qualify in N103.
Tendered To Carrier Qualifier	[034]	70	1	160	N101	98	OC	- Origin Carrier
Tendered To Carrier SCAC Qualifier	[035]	70	1	160	N103	66	2	- SCAC
Tendered To Carrier SCAC	[036]	70	1	160	N104	67		
								Use SCAC of billing company.
Destination Transportation Company Qualifier	[037]	71	1	160	N101	98	DC	- Destination Carrier
Destination Transportation Company SCAC Qualifier	[038]	71	1	160	N103	66	2	- SCAC
Destination Transportation Company SCAC	[039]	71	1	160	N104	67		
								Use SCAC of delivering carrier.
Diversion/Reconsignment From Qualifier	[043]	76	1	160	N101	98	T4	- Transfer Point
Diversion/Reconsignment From SPLC Qualifier	[044]	76	1	160	N103	66	20	- Standard Point Location Code (SPLC)
Diversion/Reconsignment From SPLC	[045]	76	1	160	N104	67		
								Qualify in N103.

410 RAIL CARRIER INVOICE DATA NAME	INDEX	DATA GRP	TBL	POS	DES	REF DE #	VALUE	DoD CONVENTION
Service Charge Loop Identifier	[046]	100	1	430	LX01	554		Assign a sequential number for each charge. Charges include transportation linehaul, accessorial, miscellaneous, and authorized surcharges. Use one LX01 for each L108 (service charge code).
Description, Marks, and Numbers	[046 010]	100	1	440	L501	213		Mandatory ANSI syntax field not required by DoD.
Loop Header	[046 020]	100	1	445	LS01	447		Mandatory ANSI syntax field not required by DoD.
Assigned Number	[047]	100	1	450	LX01	554		Mandatory ANSI syntax field not required by DoD.
Line Item - Quantity and Weight	[047 010]	100	1	460	L001	213		Mandatory ANSI syntax field not required by DoD.
Service Charge	[048]	100	1	470	L104	58		Charge for each service identified in L108. Implied decimal at second position from right.
Service Charge Code	[049]	100	1	470	L108	150		Services regulated by the Military Traffic Management Command (MTMC). See Billing Instructions available from DoD Payment Center for more information. See Appendix 10.F for cross reference from DoD codes to ASC X12 codes.
Service Charge Description	[050]	100	1	470	L112	276		Use free form description of any third party or miscellaneous service code identified in L108. See Appendix 10.F for application.

Loop Trailer	[050 010]	100	1	475	LE01	447		
								Mandatory ANSI syntax field not required by DoD.
Tariff/Tender Miles	[051]	100	1	480	L713	294		
								Mileage used in calculating mileage related charges. Qualify in L714.
Tariff/Tender Miles Qualifier	[052]	100	1	480	L714	295	T	- Tariff/Tender Miles
Total Billed Weight	[052 100]	900	1	540	L301	81		
								Total billed weight in pounds rounded to whole number. If not applicable to invoice, enter 0.
Total Billed Weight Qualifier	[052 110]	900	1	540	L302	187	B	- Billed Weight
Included Number of Segments	[053]	900	1	570	SE01	96		
								Total segments in this transaction set including the ST and SE segments.
Transaction Set Control Number	[054]	900	1	570	SE02	329		
								This data element ends the transaction set and should match the number that appears in the ST02 that begins the transaction set.

(BLANK PAGE)

10.7 DoD CONVENTIONS

Overview

This chapter presents the DoD's convention for accepting a transportation invoice using the ASC X12.139 Transaction Set 410 (Version 003020). It was derived from:

- Table 10.5-1, Data Element Cross-Reference Matrix, that describes the discrete DoD data requirements for invoices.
- ASC X12.139 Transaction Set 410 Rail Carrier Invoice.

A relational database management system was used to merge the Data Element Cross-Reference Matrix and a Transaction Set 410 database into the subset of 410 segments described in Table 10.7-3 of this chapter.

Purpose

This chapter contains all necessary information for a DoD trading partner to map and translate a Transaction Set 410. All trading partners who plan to exchange the Transaction Set 410 can use this document as a reference for the development of their EDI database/translator interface program.

Contents

This chapter contains three tables.

- Table 10.7-1, ASC X12.139 Transaction Set 410 DoD Segment Hierarchy, describes the 410 segments as they appear in the ASC X12 Standards Dictionary.
- Table 10.7-2, DoD Model Transaction Set 410 DoD Segment Hierarchy, describes the subset of 410 segments used for sending transportation invoices.
- Table 10.7-3, DoD 410 Convention, is a detailed description of the DoD's convention for transmitting Transaction Set 410. All segments identified in Table 10.7-2 are detailed in Table 10.7-3 by segment, position, and code value.

(BLANK PAGE)

TABLE 10.7-1

SEGMENT HIERARCHY

ASC X12.139 TRANSACTION SET 410
RAIL CARRIER INVOICE
(Version 003020)

(BLANK PAGE)

ASC X12.139 Transaction Set 410
Rail Carrier Freight Details and Invoice
(Version 003020)
Segment Hierarchy

Table 1 - Header Area

Industry	Pos No.	Seg ID	Name	Req Des	Use	Loop
USE	10	ST	Transaction Set Header	M	1	
USE	20	B3B	Beginning Segment for Carrier's Invoice	M	1	
	30	C4	Alternate Amount Due	O	1	
USE	40	N9	Reference Number	O	30	
USE	50	N7	Equipment Details	M	1	N7\255
	60	VC	Motor Vehicle Control	O	21	
	70	G4	Scale Identification Segment	O	1	
	80	M7	Seal Numbers	O	5	
	90	N5	Equipment Ordered	O	1	
	100	IC	Intermodal Chassis Equipment	O	1	
	110	IM	Intermodal Movement Information	O	1	
	120	M12	In-bond Identifying Information	O	1	
USE	130	N8	Waybill Reference	M	255	
USE	140	F9	Origin Station	M	1	
USE	150	D9	Destination Station	M	1	
USE	160	N1	Name	O	1	N1\10
	170	N3	Address Information	O	2	
	180	N4	Geographic Location	O	1	
	190	F1	Consignor Name	O	1	
	200	F2	Consignor Address	O	2	
	210	F4	Consignor City	O	1	
	220	D1	Consignee Name	O	1	
	230	D2	Consignee Address	O	2	
	240	D4	Consignee City	O	1	
	250	U1	Ultimate Consignee Name	O	1	
	260	U2	Ultimate Consignee Address	O	1	
	270	U4	Ultimate Consignee City	O	1	
	280	U5	Prior Origin Name	O	1	
	290	U6	Prior Origin Address	O	1	
	300	U9	Prior Origin City	O	1	

	310	F5	Consignor's Third Party	O	1	F5\10
	320	F6	Consignor's Third Party Address	O	1	
	330	F7	Consignor's Third Party City	O	1	
	340	D5	Consignee's Third Party	O	1	D5\10
	350	D6	Consignee's Third Party Address	O	1	
	360	D7	Consignee's Third Party City	O	1	
	370	S1	Stop-off Name	O	1	S1\6
	380	S2	Stop-off Address	O	1	
	390	S9	Stop-off Station	O	1	
	400	R2	Route Information	O	13	
	410	RE	Rebill At Interchange	O	1	
	420	PS	Protective Service Instructions	O	3	
USE	430	LX	Assigned Number	M	1	LX\25
USE	440	L5	Description, Marks and Numbers	M	15	
USE	445	LS	Loop Header	M	1	
USE	450	LX	Assigned Number	M	1	LX\25
USE	460	L0	Line Item - Quantity and Weight	M	10	
USE	470	L1	Rate and Charges	M	10	
USE	475	LE	Loop Trailer	M	1	
USE	480	L7	Tariff Reference	O	30	
	490	T1	Transit Inbound Origin	O	1	T1\64
	500	T2	Transit Inbound Lading	O	30	
	510	T3	Transit Inbound Route	O	12	
	520	T6	Transit Inbound Rates	O	1	
	530	T8	Free-form Transit Data	O	99	
USE	540	L3	Total Weight and Charges	M	1	
	550	X7	Customs Information	O	2	
	560	GA	Canadian Grain Information	O	1	
USE	570	SE	Transaction Set Trailer	M	1	

TABLE 10.7-2

DoD SEGMENT HIERARCHY

DoD MODEL FOR TRANSACTION SET 410 RAIL CARRIER INVOICE

(BLANK PAGE)

DoD Model Transaction Set 410
Rail Carrier Invoice
Segment Hierarchy

Table 1 - Header Area

Page No.	Pos No.	Seg ID	Name	Req Des	Use	Loop
13	10	ST	Transaction Set Header	M	1	
14	20	B3B	Beginning Segment for Carrier's Invoice	M	1	
17	40	N9	Reference Number	O	30	
20	50	N7	Equipment Details	M	1	N7\255
22	130	N8	Waybill Reference	M	255	
24	140	F9	Origin Station	M	1	
25	150	D9	Destination Station	M	1	
26	160	N1	Name	O	1	N1\10
28	430	LX	Assigned Number	M	1	LX\25
29	440	L5	Description, Marks and Numbers	M	15	
31	445	LS	Loop Header	M	1	
33	450	LX	Assigned Number	M	1	LX\25
34	460	L0	Line Item - Quantity and Weight	M	10	
36	470	L1	Rate and Charges	M	10	
38	475	LE	Loop Trailer	M	1	
40	480	L7	Tariff Reference	O	30	
42	540	L3	Total Weight and Charges	M	1	
44	570	SE	Transaction Set Trailer	M	1	

(BLANK PAGE)

TABLE 10.7-3

DoD 410 CONVENTION

How To Read This Table

This table contains two sets of references: ASC X12 references are provided in the right-hand column, while Government references are presented in the left-hand column except for codes lists which are included in the right-hand column.

ASC X12 References

The right-hand column describes the ASC X12 convention. The information included at the beginning of a segment description is standard ASC X12 information. The subheadings listed under Data Element Summary describe conventions for each data element in the segment.

> Ref Des, Data Element, Attributes: Three subheadings describe the format of the segment as prescribed by ASC X12.

> Name: Describes the ASC X12 data element and offers the standard definition. It also lists the specific code values the DoD prescribes and may provide other DoD information.

Government References

The left-hand and middle columns in Table 10.7-3 describe the DoD's conventions.

- Left-hand column contains two general references.

  > INDEX: It is enclosed in brackets and corresponds to a specific INDEX from Table 10.5-1.

  > DATA NAME: Appears above the INDEX and corresponds to a specific DATA NAME from Table 10.5-1.

- Middle column: May contain a less-than sign (<) to indicate where the DoD's convention varies from the ASC X12.

To help the user determine the source data, the INDEX can be used to trace data elements back to Table 10.5-1.

How To Use This Table

This table can be used to identify the data contained in a populated Transaction Set 410.

1. Identify a segment from a populated transaction set (see Appendix 10.C for examples of the 410).

2. Look up the segment in Table 10.7-3.

3. Read the right-hand column to identify the Reference Designator (Ref.Des.). The Reference Designator combines the segment ID and the data element position to form a single identifier.

4. Read the left-hand column immediately adjacent to the Reference Designator to find the discrete DATA NAME, INDEX, and DoD CONVENTION that can be traced to Table 10.5-1 for that Reference Designator. When multiple DATA NAMEs appear for a single Reference Designator, there is usually a code qualifier within the same segment that identifies the data.

Segment: **ST** Transaction Set Header
Level: 1
Sequence: 10
Usage: M
Max Use: 1
Loop:
Purpose: To indicate the start of a transaction set and to assign a control number
Comment: 01 The transaction set identifier (ST01) is intended for use by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the invoice transaction set).

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
ST01	**143**	**Transaction Set Identifier Code** Code uniquely identifying a Transaction Set.	**M ID 3/3**

Code	Definition
410	X12.139 Rail Carrier Freight Details and Invoice

ST02	**329**	**Transaction Set Control Number** Identifying control number assigned by the originator for a transaction set.	**M AN 4/9**

Transaction Set ID
[001]

Transaction Set Control Number
[002]

The application and structure of the control number must be agreed upon between DoD and its trading partners. The first five digits will indicate the interchange control number. The last four digits represent the sequence of the transaction within the functional group.

Segment: **B3B** Beginning Segment for Carrier's Invoice
Level: 1
Sequence: 20
Usage: M
Max Use: 1
Loop:
Purpose: To transmit identifying numbers, dates and other basic data relating to the transaction set.
Comment: 03 B3B03 is the billing date.
05 B3B05 is the payment due date.
09 B3B09 default value is pounds.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
B3B01	**76**	**Invoice Number** Identifying number assigned by issuer.	**M AN 1/22**
B3B02	**146**	**Shipment Method of Payment** Code identifying payment terms for transportation charges.	**M ID 2/2**
B3B03	**373**	**Date** Date (YYMMDD).	**M DT 6/6**
B3B04	**193**	**Net Amount Due** Total charges to be paid by the receiver of this transaction set expressed in the standard monetary denomination for the currency specified.	**M N2 1/9**

Invoice Number [003]

Transportation service provider's unique invoice number.

Shipment Method of Payment [004]

Code	Definition
PP	Prepaid
CC	Collect

Invoice Date [005]

Date the invoice is issued. Use format YYMMDD.

Total Charges
[006]

Total shipment charge including linehaul, accessorial, miscellaneous, and fuel charges. Implied decimal at second position from right.

B3B05 373 Date **M DT 6/6**

Date (YYMMDD).

Payment Due Date
[007]

Not used by DoD payment centers. Use format YYMMDD.

B3B06 140 Standard Carrier Alpha Code **M ID 2/4**

Standard Carrier Alpha Code

Billing Carrier SCAC
[008]

Use the SCAC of the carrier that issues the invoice.

B3B07 91 Transportation Method/Type Code **M ID 1/2**

Code specifying the method or type of transportation for the shipment.

Transportation Method
[009]

Code	Definition
R	Rail

B3B08 145 Shipment Identification Number **O AN 1/30**

Identification number assigned to the shipment by the shipper that uniquely identifies the shipment from origin to ultimate destination and is not subject to modification. (Does not contain blanks or special characters.)

GBL Number
[010]

DoD unique number representing a shipment. The number is made up of one or two alpha characters followed by six or seven numbers. Do not use any punctuation or special characters.

B3B09 188 Weight Unit Qualifier **O ID 1/1**

B3B10 202 Correction Indicator **O ID 2/2**

Correction Indicator
[011]

If the invoice is submitted for the first time (original invoice), this optional data field is not used.

Code used to indicate that the transaction set contains information which corrects a previous billing.

Code	Definition
AD	Supplemental
CA	Cancel

Segment: **N9** Reference Number
Level: 1
Sequence: 40
Usage: M
Max Use: 30
Loop:
Purpose: To transmit identifying numbers and descriptive information as specified by the reference number qualifier
Syntax Notes: 02 R0203 - At least one of N902 or N903 is required.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
N901	**128**	**Reference Number Qualifier** Code qualifying the Reference Number.	**M ID 2/2**

Payee Code Qualifier
[012]

Code	Definition
PQ	Payee Identification

Carrier Pickup Date Qualifier
[014]

Code	Definition
P8	Pickup Reference Number

Carrier Delivery Date Qualifier
[018]

Code	Definition
DO	Delivery Reference Number

Carrier Reference Number Qualifier
[021]

Code	Definition
CN	Carrier Reference Number (PRO Number)

N902	**127**	**Reference Number** Reference number or identification number as defined for a particular Transaction Set, or as specified by the Reference Number Qualifier.	**C AN 1/30**

Payee Code
[013]

Identification assigned by DoD payment center. Qualify in N901.

Carrier Reference Number
[022]

Qualify in N901.

N903 369 Free-form Description **C AN 1/45**
Free-form descriptive text.

Payee Zip Code
[013 010]

Zip code of location that payee authorizes payment to be sent. Must match payee information on file at payment center.

Carrier Pickup Date Text
[015]

To satisfy X12 syntax, fill this data element with "PICKUP DATE".

Carrier Delivery Date Text
[019]

To satisfy X12 syntax, fill this data element with "DELIVERY DATE."

N904 373 Date **O DT 6/6**
Date (YYMMDD).

Carrier Pickup Date
[016]

Date carrier picked up shipment. Not required for submission of supplemental invoices. Use format YYMMDD.

Carrier Delivery Date
[020]

Date carrier delivered shipment. Not required for submission of supplemental invoices. Use format YYMMDD.

N905 337 Time **O TM 4/6**
Time expressed in 24-hour clock time (HHMMSS)
(Time range: 000000 through 235959)

Carrier Pickup Time
[017]

Time carrier picked up shipment.
Use format HHMM.

Segment: N7 Equipment Details
Level: 1
Sequence: 50
Usage: O
Max Use: 1
Loop:
Purpose: To identify the equipment.
Comment: 01 N701 is mandatory for rail transactions.
20 N720 and N721 are expressed in inches.

Syntax Notes: 03 C0304 - If N703 is present, then 04 is required.
05 P0516 - If either N705 or N716 is present, then the other is required.
08 P0809 - If either N708 or N709 is present, then the other is required.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
N701	206	Equipment Initial	O AN 1/4
N702	207	Equipment Number Sequencing or serial part of an equipment unit's identifying number (pure numeric form for equipment number is preferred).	M AN 1/10
N703	81	Weight	O R 1/8
N704	187	Weight Qualifier	C ID 1/2
N705	167	Tare Weight	C N0 3/8
N706	232	Weight Allowance	O N0 2/6
N707	205	Dunnage	O N0 1/6
N708	183	Volume	C R 1/8

Equipment Number
[022 010]

Mandatory ANSI syntax field not required by DoD.

N709	184	Volume Unit Qualifier	C	ID	1/1
N710	102	Ownership Code	O	ID	1/1
N711	40	Equipment Description Code	O	ID	2/2
N712	307	Equipment Owner Code	O	ID	1/4
N713	319	Temperature Control	O	AN	3/6
N714	219	Position	O	AN	1/3
N715	567	Equipment Length	O	N0	4/5
N716	571	Tare Qualifier Code	C	ID	1/1
N717	188	Weight Unit Qualifier	O	ID	1/1
N718	761	Equipment Number Check Digit	O	N0	1/1
N719	56	Type of Service Code	O	ID	2/2
N720	65	Height	O	R	1/8
N721	189	Width	O	R	1/8
N722	24	Equipment Type	O	ID	4/4

Segment: **N8** Waybill Reference
Level: 1
Sequence: 130
Usage: M
Max Use: 255
Loop:
Purpose: To identify the waybill and to specify the equipment used and the destination details
Comment: 00 Waybill type should only be transmitted when the transaction set involves a multiple Car/TOFC/COFC shipment or a conveying flat car. Waybill type should not be sent on a single Car/TOFC/COFC.
02 N802 is the Waybill Date.
07 N807 is the Waybill Date.
10 N810 will contain destination railroad initial (SCAC).
11 N811 will contain railroad destination (FSAC).
Syntax Notes: 03 P030405 - If either N803,N804 or N8 are present, then the others are required.
06 P0607 - If either N806 or N807 is present, then the other is required.
08 P0809 - If either N808 or N809 is present, then the other is required.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
N801	**186**	**Waybill Number** Carrier accounting number of the waybill for the inbound movement.	**M N0 1/6**
N802	**373**	**Date** Date (YYMMDD).	**M DT 6/6**
N803	**231**	**Cross Reference Type Code**	**C ID 1/1**

Waybill Number
[022 100]

Mandatory ANSI syntax field not required by DoD.

Waybill Date
[022 110]

Mandatory ANSI syntax field not required by DoD.

N804	206	Equipment Initial	C	AN	1/4
N805	207	Equipment Number	C	AN	1/10
N806	186	Waybill Number	C	N0	1/6
N807	373	Date	C	DT	6/6
N808	300	Destination Station	C	AN	2/19
N809	156	State or Province Code	C	ID	2/2
N810	140	Standard Carrier Alpha Code	O	ID	2/4
N811	573	Freight Station Accounting Code	O	ID	1/5

Segment: F9 Origin Station
Level: 1
Sequence: 140
Usage: O
Max Use: 1
Loop:
Purpose: To identify the rail origin of this shipment.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
F901	573	**Freight Station Accounting Code**	O ID 1/5
F902	101	**Origin Station** Railroad station at which the movement of goods originated.	M AN 2/19
F903	156	**State or Province Code** Code (Standard State/Province) as defined by appropriate government agency.	M ID 2/2
F904	26	**Country Code**	O ID 2/2
F905	194	**Billed At Station Code**	O ID 1/6
F906	19	**City Name**	O AN 2/19
F907	156	**State or Province Code**	O ID 2/2
F908	154	**Standard Point Location Code**	O ID 6/9
F909	116	**Postal Code**	O ID 4/9

Origin Station
[022 120]

Mandatory ANSI syntax field not required by DoD.

Origin Station Code
[022 130]

Mandatory ANSI syntax field not required by DoD.

Segment: D9 Destination Station
Level: 1
Sequence: 150
Usage: O
Max Use: 1
Loop:
Purpose: To identify the rail destination of this shipment.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
D901	573	Freight Station Accounting Code	O ID 1/5
D902	300	Destination Station Railroad station at which the movement of goods is to terminate.	M AN 2/19
D903	156	State or Province Code Code (Standard State/Province) as defined by appropriate government agency.	M ID 2/2
D904	26	Country Code	O ID 2/2
D905	194	Billed At Station Code	O ID 1/6
D906	19	City Name	O AN 2/19
D907	156	State or Province Code	O ID 2/2
D908	154	Standard Point Location Code	O ID 6/9
D909	116	Postal Code	O ID 4/9

Destination Station
[022 140]

Mandatory ANSI syntax field not required by DoD.

Destination Station State Code
[022 150]

Mandatory ANSI syntax field not required by DoD.

Segment: **N1** Name
Level: 1
Sequence: 160
Usage: M
Max Use: 1
Loop:
Purpose: To identify a party by type of organization, name and code
Comment: 04 This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
Syntax Notes: 02 R0203 - At least one of N102 or N103 is required.
03 P0304 - If either N103 or N104 is present, then the other is required.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
N101	**98**	**Entity Identifier Code** Code identifying an organizational entity or a physical location.	**M ID 2/2**

Issuing Office Qualifier [031]

Code	Definition
IU	Issuer

Tendered To Carrier Qualifier [034]

Code	Definition
OC	Origin Carrier

Destination Transportation Company Qualifier [037]

Code	Definition
DC	Destination Carrier

Diversion/Reconsignment From Qualifier [043]

Code	Definition
T4	Transfer Point

N102	**93**	**Name**	**C AN 1/35**

N103 66 Identification Code Qualifier C ID 1/2

Code designating the system/method of code structure used for Identification Code (67).

Issuing Office GBLOC Qualifier
[032]

Code	Definition
27	Government Bill Of Lading Office Code (GBLOC)

Tendered To Carrier SCAC Qualifier
[035]

Code	Definition
2	Standard Carrier Alpha Code (SCAC)

Destination Transportation Company SCAC Qualifier
[038]

Code	Definition
2	Standard Carrier Alpha Code (SCAC)

Diversion/Reconsignment From SPLC Qualifier
[044]

Code	Definition
20	Standard Point Location Code (SPLC)

N104 67 Identification Code C AN 2/17

Code identifying a party.

Issuing Office GBLOC
[033]

Qualify in N103.

Tendered To Carrier SCAC
[036]

Use SCAC of billing company.

Destination Transportation Company SCAC
[039]

Use SCAC of delivering carrier.

Diversion/Reconsignment From SPLC
[045]

Qualify in N103.

Segment: LX Assigned Number
Level: 1
Sequence: 430
Usage: M
Max Use: 1
Loop:
Purpose: To reference a line number in a transaction set.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
LX01	554	**Assigned Number** Number assigned for differentiation within a transaction set.	M N0 1/6

Service Charge Loop Identifier
[046]

Assign a sequential number for each charge. Charges include transportation linehaul, accessorial, miscellaneous, and authorized surcharges. Use one LX01 for each L108 (service charge code).

Segment: **L5** Description, Marks and Numbers
Level: 1
Sequence: 440
Usage: O
Max Use: 15
Loop:
Purpose: To specify the line item in terms of description, quantity, packaging, and marks and numbers.
Comment: 02 L502 may be used to send quantity information as part of the product description.
03 L503 and L504 are "Paired" data elements. If one is used, both must be used except for rail transaction sets where STCC is understood.
Syntax Notes: 03 P0304 - If either L503 or L504 is present, then the other is required.
08 P0809 - If either L508 or L509 is present, then the other is required.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
L501	**213**	**Lading Line Item Number** Sequential line number for a lading item.	**O N0 1/3**
L502	**79**	**Lading Description**	**O AN 1/50**
L503	**22**	**Commodity Code**	**C AN 1/16**
L504	**23**	**Commodity Code Qualifier**	**C ID 1/1**
L505	**103**	**Packaging Code**	**O AN 5/5**
L506	**87**	**Marks and Numbers**	**O AN 1/45**
L507	**88**	**Marks and Numbers Qualifier**	**O ID 1/2**

Description, Marks, and Numbers
[046 010]

Mandatory ANSI syntax field not required by DoD.

L508	23	Commodity Code Qualifier	C	ID	1/1
L509	22	Commodity Code	C	AN	1/16
L510	595	Compartment ID Code	O	ID	1/1

Segment: **LS** Loop Header
Level: 1
Sequence: 445
Usage: M
Max Use: 1
Loop:
Purpose: To indicate that the next segment begins a loop
Comment: 00 LS is a control segment. LS is always used in conjunction with a corresponding loop trailer (end) - LE, as illustrated below. The LS and LE indicate the start and end of a loop but are not part of the iteration of the loop.

LOOP NESTING
Loop "A" Header (LS "A")
Loop "B" Header (LS "B")
Loop "C" Header (LS "C")
Loop "C" Trailer (LE "C")
Loop "D" Header (LS "D")
Loop "D" Trailer (LE "D")
Loop "B" Trailer (LE "B")
Loop "A" Trailer (LE "A")

Neither LS nor LE is used if the data within the loop is not used.

Syntax Notes: 00 One loop may be nested contained within another loop, provided the inner nested loop terminates before the outer loop. When specified by the standard setting body as 'mandatory', this segment in combination with "LE", must be used. It is not to be used if not specifically set forth for use. The loop identifier in the loop header and trailer must be identical. The value for the identifier is the loop ID of the required loop beginning segment. The loop ID number is given on the transaction set diagram in the appropriate ASC X12 version/release.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
LS01	**447**	**Loop Identifier Code** Code identifying a loop within the transaction set	**M AN 1/4**

which is bounded by the related LS and LE segments (corresponding LS and LE segments must have the same value for loop identifier). (Note: The loop ID number given on the transaction set diagram is recommended as the value for this data element in segments LS and LE.)

Loop Header
[046 020]

Mandatory ANSI syntax field not required by DoD.

Segment: **LX** Assigned Number
Level: 1
Sequence: 450
Usage: M
Max Use: 1
Loop:
Purpose: To reference a line number in a transaction set.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
LX01	**554**	**Assigned Number** Number assigned for differentiation within a transaction set.	**M N0 1/6**

Assigned Number
[047]

Mandatory ANSI syntax field not required by DoD.

Segment: L0 Line Item - Quantity and Weight
Level: 1
Sequence: 460
Usage: O
Max Use: 10
Loop:
Purpose: To specify quantity, weight, volume and type of service for a line item including applicable "quantity/rate-as" data.
Syntax Notes:
02 P0203 - If either L002 or L003 is present, then the other is required.
04 P0405 - If either L004 or L005 is present, then the other is required.
06 P0607 - If either L006 or L007 is present, then the other is required.
08 P0809 - If either L008 or L009 is present, then the other is required.
11 C1104 - If L011 is present, then 04 is required.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes		
L001	213	**Lading Line Item Number** Sequential line number for a lading item.	O	N0	1/3
L002	220	**Billed/Rated-as Quantity**	C	R	1/11
L003	221	**Billed/Rated-as Qualifier**	C	ID	2/2
L004	81	**Weight**	C	R	1/8
L005	187	**Weight Qualifier**	C	ID	1/2
L006	183	**Volume**	C	R	1/8
L007	184	**Volume Unit Qualifier**	C	ID	1/1
L008	80	**Lading Quantity**	C	N0	1/7

Line Item - Quantity and Weight
[047 010]

Mandatory ANSI syntax field not required by DoD.

L009	211	Packaging Form Code	C	ID	3/3
L010	458	Dunnage Description	O	AN	2/25
L011	188	Weight Unit Qualifier	O	ID	1/1
L012	56	Type of Service Code	O	ID	2/2

Segment: L1 Rate and Charges
Level: 1
Sequence: 470
Usage: O
Max Use: 10
Loop:
Purpose: To specify rate and charges detail relative to a line item including freight charges, advances, special charges, and entitlements
Syntax Notes: 04 R040506 - At least one of L104,L105 or L106 is required.
14 P1415 - If either L114 or L115 is present, then the other is required.
17 P1718 - If either L117 or L118 is present, then the other is required.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes		
L101	213	Lading Line Item Number	O	N0	1/3
L102	60	Freight Rate	O	R	1/9
L103	122	Rate/Value Qualifier	O	ID	2/2
L104	58	Charge For a line item: freight or special charge; for the total invoice: the total charges -- expressed in the standard monetary denomination for the currency specified.	C	N2	1/9
L105	191	Advances	C	N2	1/9
L106	117	Prepaid Amount	C	N2	1/9
L107	120	Rate Combination Point Code	O	AN	3/9
L108	150	Special Charge or Allowance Code	O	ID	3/3

Service Charge
[048]

Charge for each service identified in L108. Implied decimal at second position from right.

Code identifying type of special charge or allowance.

Service Charge Code
[049]

Services regulated by the Military Traffic Management Command (MTMC). See Billing Instructions available from DoD Payment Center for more information. See Appendix 10.F for cross reference from DoD codes to ASC X12 codes.

L109	**121**	**Rate Class Code**	**O**	**ID**	**1/3**
L110	**39**	**Entitlement Code**	**O**	**ID**	**1/1**
L111	**16**	**Charge Method of Payment**	**O**	**ID**	**1/1**
L112	**276**	**Special Charge Description**	**O**	**AN**	**2/25**

Identification of special charge. This data element is used whenever an applicable code cannot be found in data element 150.

Service Charge Description
[050]

Use free form description of any third party or miscellaneous service code identified in L108. See Appendix 10.F for application.

L113	**257**	**Tariff Application Code**	**O**	**ID**	**1/1**
L114	**74**	**Declared Value**	**C**	**N2**	**2/10**
L115	**122**	**Rate/Value Qualifier**	**C**	**ID**	**2/2**
L116	**372**	**Lading Liability Code**	**O**	**ID**	**1/1**
L117	**220**	**Billed/Rated-as Quantity**	**C**	**R**	**1/11**
L118	**221**	**Billed/Rated-as Qualifier**	**C**	**ID**	**2/2**

Segment: LE Loop Trailer
Level: 1
Sequence: 475
Usage: M
Max Use: 1
Loop:
Purpose: To indicate that the loop immediately preceding this segment is complete
Comment: 00 LE is a control segment. LE is always used in conjunction with a corresponding loop header (start) - LS, as illustrated below. The LS and LE indicate the start and end of a loop but are not part of the iteration of the loop.

LOOP NESTING
Loop "A" Header (LS "A")
Loop "B" Header (LS "B")
Loop "C" Header (LS "C")
Loop "C" Trailer (LE "C")
Loop "D" Header (LS "D")
Loop "D" Trailer (LE "D")
Loop "B" Trailer (LE "B")
Loop "A" Trailer (LE "A")

Neither LS nor LE is used if the data within the loop is not used.

Syntax Notes: 00 One loop may be nested contained within another loop, provided the inner nested loop terminates before the outer loop. When specified by the standard setting body as 'mandatory', this segment, in combination with "LS", must be used. It is not to be used if not specifically set forth for use. The loop identifier in the loop header and trailer must be identical. The value for the identifier is the loop ID of the required loop beginning segment. The loop ID number is given on the transaction set diagram in the appropriate ASC X12 version/release.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
LE01	447	**Loop Identifier Code** Code identifying a loop within the transaction set	M AN 1/4

which is bounded by the related LS and LE segments (corresponding LS and LE segments must have the same value for loop identifier). (Note: The loop ID number given on the transaction set diagram is recommended as the value for this data element in segments LS and LE.)

Loop Trailer
[050 010]

Mandatory ANSI syntax field not required by DoD.

Segment: L7 Tariff Reference
Level: 1
Sequence: 480
Usage: O
Max Use: 30
Loop:
Purpose: To reference details of the tariff used to arrive at applicable rates or charge
Comment: 10 L710 is the Effective Date.
15 "City" and "State" in L715 and L716 are used for rate combination city and state.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
L701	213	Lading Line Item Number	O N0 1/3
L702	168	Tariff Agency Code	O ID 1/4
L703	171	Tariff Number	O AN 1/7
L704	172	Tariff Section	O AN 1/2
L705	169	Tariff Item Number	O AN 1/16
L706	170	Tariff Item Part	O N0 1/2
L707	59	Freight Class Code	O AN 2/5
L708	173	Tariff Supplement Identifier	O AN 1/4
L709	46	Ex Parte	O AN 4/4
L710	373	Date	O DT 6/6
L711	119	Rate Basis Number	O AN 1/6
L712	227	Tariff Column	O AN 1/2

Tariff/Tender Miles
[051]

Mileage used in calculating mileage related charges. Qualify in L714.

L713 294 Tariff Distance O N0 1/5

Distance on which the rate for a shipment is based.

L714 295 Distance Qualifier O ID 1/1

Code identifying the distance unit.

Tariff/Tender Miles Qualifier
[052]

Code	Definition
T	Tariff/Tender Miles

L715 19 City Name O AN 2/19

L716 156 State or Province Code O ID 2/2

Segment: L3 Total Weight and Charges
Level: 1
Sequence: 540
Usage: C
Max Use: 1
Loop:
Purpose: To specify the total shipment in terms of weight, volume, rates, charges, advances, and prepaid amounts applicable to one or more line items
Comment: 05 L305 is the total charges.
Syntax Notes: 01 P0102 - If either L301 or L302 is present, then the other is required.
03 P0304 - If either L303 or L304 is present, then the other is required.
09 P0910 - If either L309 or L310 is present, then the other is required.
14 P1415 - If either L314 or L315 is present, then the other is required.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
L301	81	**Weight** Numeric value of weight.	C R 1/8
L302	187	**Weight Qualifier** Code defining the type of weight. Code: B — Billed Weight	C ID 1/2
L303	60	**Freight Rate**	C R 1/9
L304	122	**Rate/Value Qualifier**	C ID 2/2
L305	58	**Charge**	O N2 1/9
L306	191	**Advances**	O N2 1/9

Total Billed Weight
[052 100]

Total billed weight in pounds rounded to whole number. If not applicable to invoice, enter 0.

Total Billed Weight Qualifier
[052 110]

L307	117	Prepaid Amount	O	N2	1/9
L308	150	Special Charge or Allowance Code	O	ID	3/3
L309	183	Volume	C	R	1/8
L310	184	Volume Unit Qualifier	C	ID	1/1
L311	80	Lading Quantity	O	N0	1/7
L312	188	Weight Unit Qualifier	O	ID	1/1
L313	171	Tariff Number	O	AN	1/7
L314	74	Declared Value	C	N2	2/10
L315	122	Rate/Value Qualifier	C	ID	2/2

Segment: SE Transaction Set Trailer
Level: 1
Sequence: 570
Usage: M
Max Use: 1
Loop:
Purpose: To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments).
Comment: 00 SE is the last segment of each transaction set.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
SE01	**96**	**Number of Included Segments** Total number of segments included in a transaction set including ST and SE segments.	**M N0 1/6**

Included Number of Segments [053]

Total segments in this transaction set including the ST and SE segments.

Ref. Des.	Data Element	Name	Attributes
SE02	**329**	**Transaction Set Control Number** Identifying control number assigned by the originator for a transaction set.	**M AN 4/9**

Transaction Set Control Number [054]

This data element ends the transaction set and should match the number that appears in the ST02 that begins the transaction set.

10.C Examples - X12.139 Transaction Set 410 Rail Carrier Invoice

This appendix contains an example of the ASC X12 Transaction Set 410 for transmitting invoice information to a DoD payment center.

The example illustrates the use of this transaction set to transmit invoice information to the Defense Finance and Accounting Service - Indianapolis Center (DFAS-IN).

(BLANK PAGE)

Example - Invoice information from Carrier to DFAS-IN using ASC X12 410

ST*410*00001 n/l	**Transaction set header**
B3B*784682*CC*910630*99750*910723*CR*R*C0016115 n/l	**Beginning segment**
N9*PQ*1611*45421 n/l	**Payee code**
N9*P8**PICKUP DATE*910622*1230 n/l	**Pickup date and time**
N9*DO**DELIVERY DATE*910630 n/l	**Delivery date**
N9*CN*827648 n/l	**Carrier reference number**
N7**000 n/l	**Equipment number**
N8*110201*910630 n/l	**Waybill number**
F9**origin station*VA n/l	**Origin station**
D9**destination station*CA n/l	**Destination station**
N1*IU**27*LNFL n/l	**Issuing Office GBLOC**
N1*OC**2*AACS n/l	**Tendered To Carrier SCAC**
N1*DC**2*CR n/l	**Destination transportation company SCAC**
LX*1 n/l	**Charge loop ID**
L5*1 n/l	**Description, marks, numbers**
LS*1 n/l	**Loop header**
LX*1 n/l	**Assigned number**
L0*1 n/l	**Line item - quantity and weight**
L1****80000****LHS n/l	**Transportation linehaul charge**
LE*1 n/l	**Loop trailer**
L7**********1500*T n/l	**Tender miles**
LX*2 n/l	**Assigned number**
L5*2 n/l	**Description, marks, number**
LS*2 n/l	**Loop header**
LX*2 n/l	**Charge sub-loop ID**
L0*2 n/l	

	Line item - quantity and weight
L1****197.50****ARG n/l	**Accessorial services charge**
LE*2 n/l	**Loop trailer**
L3*120000*B n/l	**Total weight**
SE*30*00001 n/l	**Transaction set trailer**

10.F Additional DoD Code Lists

This appendix contains additional DoD code lists for formatting invoice data to the ASC X12 Transaction Set 410. Please note that DoD code definitions may differ slightly from those presented in the ASC X12 Standards publications.

Code list includes:

[051] - Service Charge Code

Footnote definitions:

* Need new X12 code

(BLANK PAGE)

[055] Service Charge Code

Mapping: 2 120 L108 150

Accessorial Services for Freight Rail Shipments

DoD Code	L108 Value	DoD Definition
AC	045	Advancing Charges
AA	AAS	Attendants Accompanying
RG	ARG	Rail Armed Guard
CG	CCS*	Carrier Caboose
CG	CGC	Carrier Guard Cars
CG	CGR	Government Caboose/Guard Cars Returned
CG	CSP*	Government Caboose
DM	DEM	Demurrage
DV	DTB	Detention
EC	ECS	Empty Cars Ordered But Not Used
SO	EXM	Stop-off (Excess Mileage Charge)
FC	FCS	Furnishing Chassis
CG	GSP*	Government Guard Car
GS	GSS	Greater Security
HF	HHB	Handling Freight
HR	HRS	Heater/Refrigeration
PR	PRL	Prelodging
PD	PUD	Pickup/Delivery
RC	RCC	Reconsignment/Diversion
RD	RCL	Redelivery
RV	RLS	Relocation of Vehicle
RS	RMS	Rail Surveillance
SS	SFT	Special Train Service
SO	SOC	Stop-Off
SP	SPU	Split Pickup/Delivery
SG	SRG	Storage
SV	SVS	Storage of Vehicles
TS	TMS	Tank Surveillance(two tanks per car)
TM	TMV	Tendering of Multiple Vehicles

TS	TSS	Tank Surveillance(one tank per car)
LU	URC	Loading/Unloading
VF	VFN	Vehicle Furnished But Not Used
WV	WTV	Weight Verification

Third Party or Miscellaneous Services

DoD Code	L108 Value	DoD Definition	L112 Value
-	TPS	Third Party/Miscellaneous Service	Description

Linehaul Services

DoD Code	L108 Value	DoD Definition	L112 Value
-	LHS	Linehaul service	-

Surcharges

DoD Code	L108 Value	DoD Definiti	L112 Value
-	405	Fuel surcharge	-

(BLANK PAGE)

REPORT DOCUMENTATION PAGE

Form Approved
OPM No.0704-0188

1. AGENCY USE ONLY *(Leave Blank)*	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	September 94	Final

4. TITLE AND SUBTITLE

DoD Electronic Data Interchange (EDI) Convention:
TDCC/EDIA Transaction Set 410 Rail Carrier Invoice (Version 003020)

5. FUNDING NUMBERS

C MDA903-90-C-0006

PE 0902198D

6. AUTHOR(S)

W. Michael Bridges and Harold L. Frohman

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

Logistics Management Institute
2000 Corporate Ridge
McLean, VA 22102-7805

8. PERFORMING ORGANIZATION REPORT NUMBER

LMI– DF301LN4

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

Chieft RPTA Division
Defense Finance and Accounting Service — Indianapolis Center
Information Systems Directorate, Building 1
Fort Harrison, IN 46249-0901

10. SPONSORING/MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

Prepared in cooperation with Data Interchange Standards Association, the Secretariat and administrative arm of the Accredited Standards Committee X12.

12a. DISTRIBUTION/AVAILABILITY STATEMENT

A: Approved for public release; distribution unlimited

12b. DISTRIBUTION CODE

13. ABSTRACT ***(Maximum 200 words)***

This is an electronic data interchange (EDI) systems design document that describes the standard or "convention" the Department of Defense (DoD) will use to accept a transaction invoice using the ASC X12.139 Transaction Set 410 Rail Carrier Invoice (003020).

14. SUBJECT TERMS

Electronic Data Interchange; EDI; DoD EDI Convention; Electronic Commerce; ANSI X12; X12; electronic standards; electronic business standards; computer-to-computer exchange of data; electronic documents; electronic records; paperless environment; conventions; invoice; rail carrier

15. NUMBER OF PAGES

92

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	UL